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Author Topic: Teardown: Philips SX1019 LNB (Read 7329 times)

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wkb
Frequent Contributor

Posts: 540
Country:

Teardown: Philips SX1019 LNB

« **on:** March 17, 2012, 07:59:03 pm »

Today I spent EUR 2 on a surplus LNB for DVB-S reception. Although I know how they work I had never seen one 'dissected'. So...

The type is a Philips SX1019. The grey circular 'pills' are the 2 local oscillators, one for high and one for low band reception.
The bottom view of the cast aluminium body shows 2 Torx-head screws to tune these oscillators (they are closest to the F-connector). The gold plated pins in a white Teflon washer are for horizontally and vertically polarised signals. 2 FETs are used to select one or the other. Lots of microstrip 'components' too.

DSCF2298.JPG (274.24 kB, 1024x768 - viewed 1295 times.)

DSCF2300.JPG (199.64 kB, 1024x768 - viewed 683 times.)

DSCF2303.JPG (223.06 kB, 1024x768 - viewed 653 times.)

DSCF2305.JPG (187.49 kB, 1024x768 - viewed 735 times.)

DSCF2295.JPG (274.55 kB, 1024x768 - viewed 807 times.)

DSCF2297.JPG (300.02 kB, 1024x768 - viewed 710 times.)

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NiHaoMike

Super Contributor

Posts: 5743

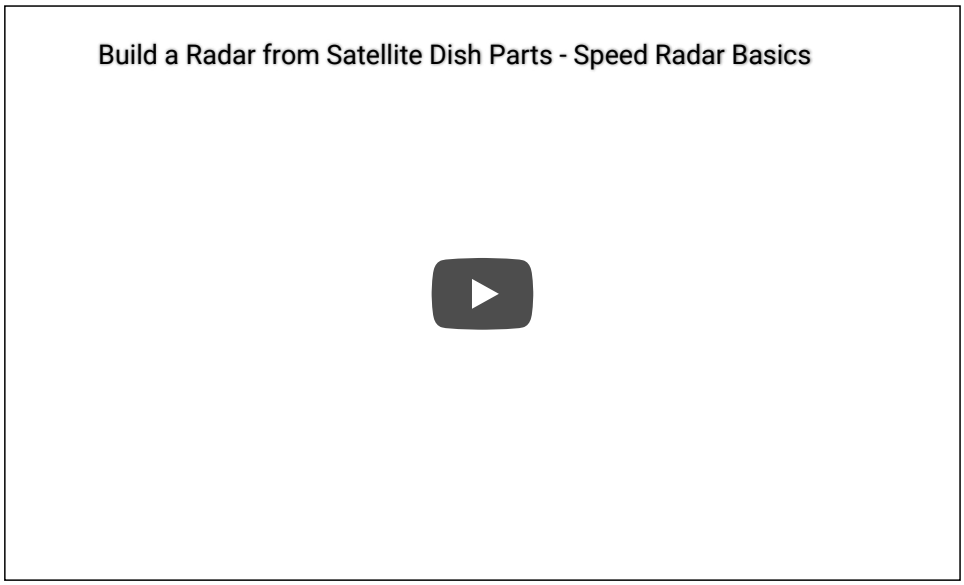
Country:

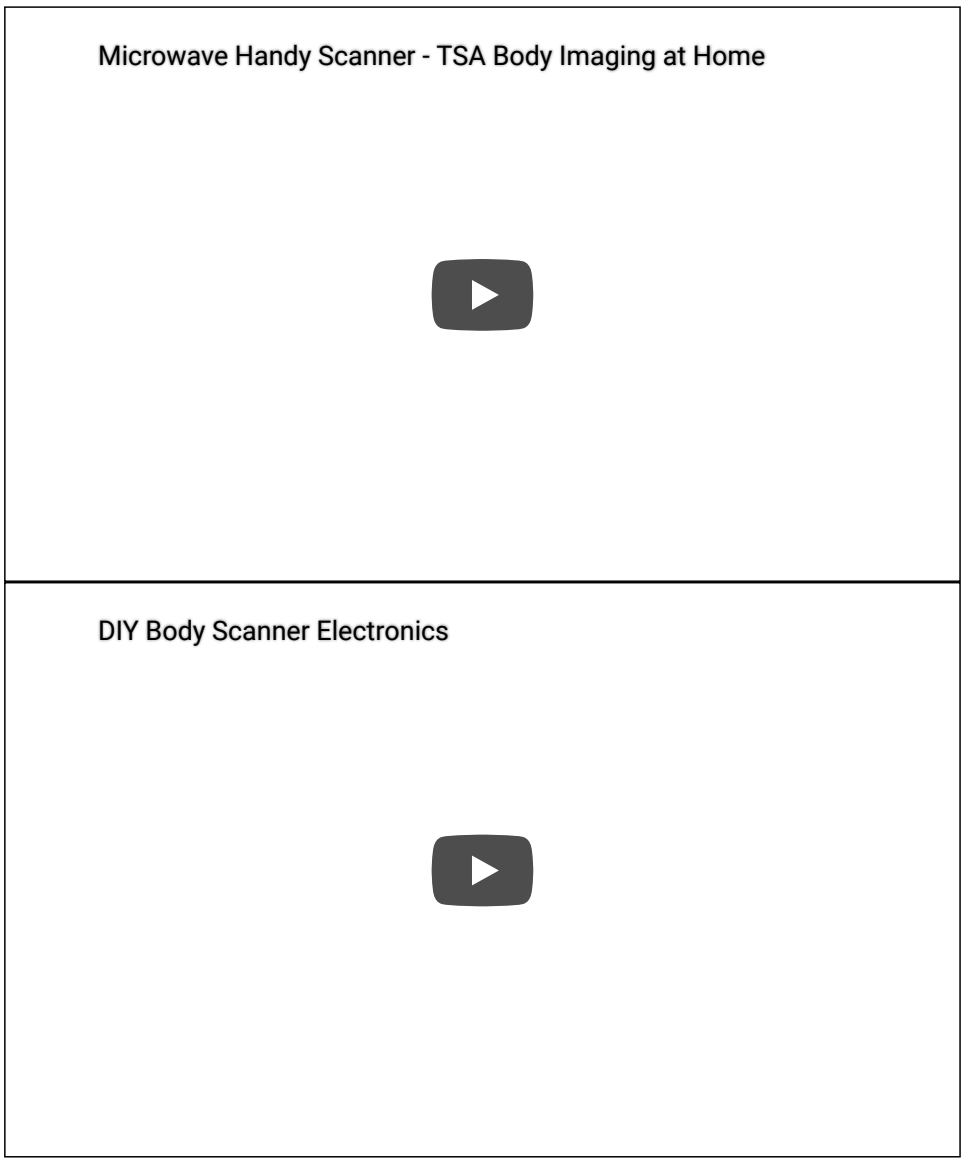
"Don't turn it on - Take it apart!"

Re: Teardown: Philips SX1019 LNB

« **Reply #1 on:** March 18, 2012, 02:33:51 am »

Jeri Ellsworth shows how to build a radar from old satellite dishes:





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Cryptocurrency has taught me to love math and at the same time be baffled by it.

Cryptocurrency lesson 0: Altcoins and Bitcoin are not the same thing.

wkb
Frequent Contributor

Posts: 540
Country:

Re: Teardown: Philips SX1019 LNB
« **Reply #2 on:** March 18, 2012, 11:59:39 am »

I took some more pictures, the second one nicely shows the horizontal and vertical 'pickups'

DSCF2311.JPG (168.45 kB, 1024x331 - viewed 967 times.)

DSCF2314.JPG (208.26 kB, 1024x655 - viewed 954 times.)

« *Last Edit: March 21, 2012, 08:23:32 pm by wkb* »

Logged

amyk
Super Contributor

Posts: 6580

Re: Teardown: Philips SX1019 LNB
« **Reply #3 on:** March 19, 2012, 11:57:13 am »

Always interesting to look at microwave stuff because of how different things are. Most people who are otherwise knowledgeable in lower-frequency electronics would not easily see how a ceramic puck next to a few PCB traces is enough to form an oscillator.

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SeanB
Super Contributor

Re: Teardown: Philips SX1019 LNB
« **Reply #4 on:** March 21, 2012, 12:25:22 pm »

Posts: 15249
Country:

Microwaves - where electronics becomes plumbing. Or rather, where most of your parts come from the hardware shop, and are assembled with a gas torch.

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